

ABSTRACT OF THE DISCLOSURE

A main CPU reads out CMY values as γ correction patch data from an NVRAM, and outputs a γ correction patch from a color printer section via a γ correction patch output section. The output γ correction patch (sheet) is read by a color scanner section 1 as RGB image data. The RGB image data is converted to CMY color signals by a color conversion section 131 and input to the main CPU via a buffer memory. The main CPU calculates patch read data from the CMY color signals and compares it with the γ correction patch data stored in the NVRAM. The main CPU then calculates an inverse function of a curve of the patch read data and forms γ correction tables of four colors, C, M, Y and K. The γ correction tables are used for full-color γ correction. On the other hand, the main CPU performs an arithmetic operation (error correction) of an error correction table $h(x)$, with an output of black (K) at screen angle -63° being $f(x)$ and an output of mono-color black (K) at screen angle 90° being $g(x)$. The error correction table $h(x)$ is used for γ correction of mono-color black.

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